PUBLIC fax, PUBLIC pagers, PUBLIC voice mail, and other PUBLIC designated services. These classifications are PUBLIC HEXADECIMAL NUMBERS and do require the use of the # and * somewhere in the NUMBER. Just in case you still don't understand, the # and * are on every dial and are HEXADECIMAL. A phone number that has either the # or the * in it, is a number that must be related to the Technology-Specific or Service-Specific Area Code.

194. As for the PRIVATE HEXADECIMAL PHONE NUMBERS, we don't want you to be able to dial these NUMBERS. This is a part of the whole scheme of things we assert herein. No need for pay PHONE blocking on toll free NUMBERS that are PRIVATE HEXADECIMAL NUMBERS. No more vandalism calls or annoying calls to the alarm computer because this INDUSTRY will flock to the PRIVATE HEXADECIMAL NUMBERS, as it is a clear advantage, a good business choice.

195. No one can expect equipment manufacturers to produce equipment without firm understandings about what is available from the PHONE system. There will be some items of equipment that will only work on some digits and others on still other digits. I have been in contact with several manufacturers about this issue. Some say they are not sure and don't want to spend the money, because it's your move first.

196. EQUIPMENT MANUFACTURERS WILL COMPLY - As soon as the orders are issued and the phone company can demonstrate the numbers are on and operating, every manufacturer of equipment indicated they would make the changes required to their various pieces of equipment, so that they could take full advantage of the Private HEXADECIMAL Phone number group.

197. I contacted several companies: AOL will move when the system is working, ADEMCO, FBI, and DSC Security will produce ▒HEX READY▒ equipment as soon as the system is operating and there is demand. Everyone I have contacted is excited about this Proposal and will cooperate on a prove-it-is-working basis, and then, they

will make the equipment needed.

197. URGENT REQUEST FOR TEST LINES - Nothing can be tested for application without the existence of test lines. Urgent request is made for establishing a test location in San Diego at 619/231-123(B=*), 619/231-123(C=#), 619/231-123D, 619/231-123E, 619/231-123F, 619/231-123(Ø =true zero).

198. These lines should have recordings that say: ▒Hex test line B star was successful▒ then repeat the message until caller hangs up. This is to be repeated for lines (*=B), (#=C), D, E, F, and Ø (true zero) so that modem computer calls, alarm calls, point of sale calls, pager calls, and voice mail calls can each confirm success with their PRIVATE equipment using the full HEXADECIMAL system. These lines should be setup so that no toll is reported to the caller's bill.

199. Modem tests (and all other types) will confirm that the modem can dial the test NUMBERS by having the tester person listening in on the line and making confirmation aurally. This is simple and avoids the need for specific ▒receiver▒ types of equipment attached to several lines that will ▒fully function▒ based upon which system is being tested, which would be beyond reason to ask Pacific Bell to provide. This method will allow 99.9% testing of all systems without the need for having a alarm receiver on the line or a point of sale receiver on the line and so on, which would of course, provide 100% testing.

200. After confirmation of the abilities of equipment to dial the hex NUMBERS, manufactures will begin ordering their customer's lines and start using the hex NUMBER PHONE lines, freeing the existing DECIMAL NUMBER PHONE lines for assignment to the PUBLIC.

201. Keep in mind, the Savings Account story, it will take years for users to migrate to hex NUMBER usage, but it will not begin to happen until we open the gates.

202. ALLEGIANCE TO NO ONE - The PUBLIC owes the Telephone Company nothing. We have allowed our alleged agency to sleep as the PHONE Company comes begging for the PUBLIC to pay for equipment properly the obligation of the PHONE Company. Touch Tone should never have been charged to the PUBLIC. Buy it yourselves!

203. Gas stations were told you will change or close. They went out and paid for the required improvements so why should the PHONE company even ask for payment. Go do it yourself. I have been a visitor at several telephone company establishments. We owe you nothing, living so high on the hog, plush elegant surroundings, If the PUBLIC knew how lavish your offices are, they would be furious with such wastes of our hard earned money to pay for the PHONE bill each month.

204. NUMBER SYSTEM DESIGNATIONS - we need a simple way to designate the NUMBER set we are talking about in this proposal for rule making.

205. This is a problem because the NUMBERS used in the PHONE system are said to be ▒dirty.▒ This stems from the problems resulting in mixing pure DECIMAL sets with partial DECIMAL sets and partial HEXADECIMAL sets and pure HEXADECIMAL sets. It sounds more complicated than it really is for the average person.

206. The set we call pure DECIMAL is: Ø , 1, 2, 3, 4, 5, 6, 7, 8, 9.

207. The PHONE set is: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0=A, *=B, #=C.

208. The set we call pure HEXADECIMAL is: Ø, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F.

209. Note the use of Ø as true zero, 0=A=10, *=B=11, #=C=12 and the significance of location (where is the zero) in the set string of these characters. So, how to deal with these without

requiring full definitions in every line of text?

209. I will refer to DECIMAL NUMBERS as: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0=A, the present NUMBER assignment set now in use.

210. I will refer to PUBLIC HEXADECIMAL NUMBERS as: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0=A, *=B, #=C, the proposed, limited use of a partial HEXADECIMAL NUMBER set, all of which are on the existing PHONE pad.

211. I will refer to PRIVATE HEXADECIMAL NUMBERS as: Ø , 1, 2, 3, 4, 5, 6, 7, 8, 9, 0=A, *=B, #=C, D, E, F, the proposed full use of the HEXADECIMAL set. All characters are not on the PHONE pad, but can be used and programmed in various ways by several types of equipment.

212. HOW PUBLIC AND HOW PRIVATE - The terms PUBLIC and PRIVATE do not mean that these are somehow truly PRIVATE NUMBERS. It is just a way to simplify what is being talked about in a simple and convenient way.

213. The proposed INDUSTRY classification of service will be tariffed for both PUBLIC and PRIVATE HEXADECIMAL NUMBERS. All you get is a PHONE line with a dial tone. No other services (411, yellow pages) or features (call waiting) are to be provided in this class of service. Call forwarding should be available for safety reasons.

214. CONTAMINATION DEFINED - A NUMBER is HEXADECIMAL if any part of it is HEXADECIMAL! So if the area code added as an overlay in the 213 area is 21F or the area code added to 415 is 41* then all, ALL NUMBERS under this area code are HEXADECIMAL, even when the NUMBER looks like 231-1313. All these NUMBERS exist, but never have been used. If the prefix and line NUMBER assignments are DECIMAL NUMBERS (which would be a simplification, by assigning these first) then we have just created 8 million new,

never before used NUMBERS outside the DECIMAL area codes humans use. If the prefix and line NUMBER assignments are HEXADECIMAL NUMBERS then we have just created 268,435,456 lines for each area code. The general PUBLIC will never know about or use these NUMBERS. This is a profound realization you must embrace.

214. AB818 BACKGROUND - The author introduced this bill due to concerns over the proliferation of area codes in the last few years. The NUMBER of area codes in California has doubled since 1991. Today, telephone NUMBERS are only assigned in blocks of 10,000 to the telecommunications service providers who request them. This is the case whether the service provider has 10 customers or 9,500 customers in the area served by that block of 10,000 NUMBERS. The federal Telecommunications Act of 1996 delegated full jurisdiction over "Numbering" issues to FCC. FCC has delegated to the states limited authority to implement area code relief by doing one of the following: a) ordering an area code split; b) ordering an overlay; or c) realignment of an existing area code boundary.

215. Last month, at long last, the CPUC filed two petitions with the FCC seeking additional delegation of authority in order allocate NUMBERS more efficiently and thus decrease the need to create new area codes in the state. The Technology-Specific or Service-Specific Area Code request to the FCC is exactly what this Hexadecimal Numbering System requires. But, why did it take you 15 years to request it?

216. And, how come numbers are not assigned on an individual basis, the same as is done with toll free numbers. I had toll free numbers in the early 1970s. The Phone Company decided on the number, based upon an elaborate formula. Today we select the number and the provider without interference or restriction. Now that we have advanced to this point, it is remarkable to again hear about all the restrictions and bulk (10,000) assignment requirements. I suspect this is fraudulent, a diversion to delay

competition from advancing. Clearly, no one will change their business number to a different number as a requirement to conduct business with a different provider. This is not even a possibility, so why are they denying access? Follow the money!

216. HEXADECIMAL SOLUTION PERSPECTIVE - No one else has offered any solution anywhere near the effectiveness provided by INDUSTRY Service and HEXADECIMAL PHONE NUMBERS. This solves the NUMBER crunch and significantly extends time to the expected exhaust of NANP to nearly 100 plus years.

217. Historically, the uses of HEXADECIMAL NUMBERS, still in application today, may require some correction of bad choices previously made, if we are to realize our full potential goal of using all the NUMBERS available on the network. Contamination of NUMBER base must stop. Today we use the ▒0▒ zero which is actually a 10 or in hex, an ▒A.▒ And the ▒*▒ is eleven or in hex ▒B,▒ then the ▒#▒ is used also, but true zero or zero slash is not used. These will continue to be used, and be expanded in their use, in this hex proposal.

218. We must require better utilization of this resource. The mandatory conservation of the broad spectrum of NUMBER applications in the North American Numbering Plan of the telephone INDUSTRY is no less significant than the very same practices of the Federal Communications Commission in regards to the Electromagnetic Spectrum for radio and television. Of course, this explains the absents of channel 1 on your TV, he said with a twinkle in his eye!

219. Significantly, INDUSTRY Service providing PRIVATE HEXADECIMAL phone numbers will be specifically denied publication and directory assistance services, as these ▒hex▒ NUMBERS are somewhat PRIVATE and are to be used by automatic equipment, not ▒digitally▒ dialed by a person, but rather by computers, alarms, point of sale reporting, and a multitude of other automated

applications, and also used in NON-PUBLIC voice applications that may be ▒field▒ dialed as highway emergency Phones and elevator Phones, among others. These are NOT Vanity PHONE NUMBERS, but Hex NUMBERS.

219. Nothing will preclude the INDUSTRY PRIVATE use as in an ▒order▒ line for Circuit City stores ordering from their warehouse without PUBLIC interference as always develops in time with PUBLIC 800 NUMBERS, which then become clogged with ▒customers▒ inquiring about some concern they may have, even when given a PUBLIC 800 NUMBER to call for resolution of their issues. By using PRIVATE HEXADECIMAL NUMBERS for this application, almost no one will be able to dial the NUMBER even if they obtain it some way or other, yet legitimate company use is automated by pushing a single button, after the button is programmed into their PHONE'S memory.

220. In high-speed modem applications, INDUSTRY Service will provide special services available only by way of HEXADECIMAL PHONE NUMBERS. By grouping these services into one specific area of the switch room, better services can be provided by the phone company as a result of the technical advantages offered by requiring ▒this dial up service on this line▒ located in ▒this▒ area of the switch room. Keep in mind, these numbers are never published, so number selection no longer matters, any old number will do for automatic equipment services.

221. If all America On Line customers and all other similar dial up network customers were REQUIRED to use hex PHONE NUMBERS for their access, then how many thousand PUBLIC NUMBERS would be freed for assignment for Business and Residence assignment? America On Line has not answered this question, so estimation is in order. In San Diego, could it be as high as 70,000 lines and growing, that is 7 prefixes saved and service is improved in the process, such a deal!

222. SERVICE SPECIFIC APPLICATIONS, WITH COMMENTARY AND ANALYSIS - As you know there are various kinds of service types available in California and the nation. This discussion will attempt to point out areas of conservation of NUMBERS that would apply to each service.

223. TOLL FREE - NUMBERS are provided by just about everybody including PT and GTE in state. All toll free NUMBERS, whether 800 or 888 or 877 or those newly proposed to be used 800/025 and 800/175 or 80C or 80D and so on; all these function in the same way. It is inexcusable for the PHONE Company to tell us that no 800 NUMBERS exist when they have not used 800/001-0000 for example. This is a perfectly good NUMBER group and should be assigned immediately. For simplicity, I will use just 800 in examples, but you must keep in mind, it applies equally well to all toll free area codes, including HEXADECIMAL toll free area codes.

224. The dialed NUMBER is translated to a pots NUMBER in a look up table at the call processing center and then the call is processed in the same way as all other calls on the network. Keep in mind, all NUMBERS in the toll free system are part of a national overlay that is broken down to a local NUMBER when it is translated. Some are terminated and some are dumped, more about this below.

225. If you dial 1-800/034-5678 or 1-80E/100-9876 or 1-888/445-#123 the call will be ※looked up※ at the call processing center and changed or translated to, for example, a pots NUMBER: 415/345-6789, then the call is completed in the normal way all calls are handled on the network.

226. There are several places where NUMBER conservation is not being practiced. If you dial American Airlines toll free NUMBER, 1-800/433-7300 this is translated to 213/255-1911 and is

processed. Notice the fact that a caller never knows that they are being connected to 213/255-1911 and also, they will never know that instead they are being connected to 213/F11-0000 which is a PRIVATE HEXADECIMAL NUMBER that does not consume PUBLIC NUMBERS in the 213 area code.

226. And what about second lines and so on. Were a caller to request the NUMBER for American Airlines in Los Angeles using 411, they would get the NUMBER 213/445-1000. This NUMBER has 999 lines behind it: 213/445-1000 to 1999, as an example. Why should the PUBLIC NUMBERS 445-1001 and so on be used? They should not! They should be PRIVATE HEXADECIMAL NUMBERS.

227. All NUMBERS in a rotary bank should be HEXADECIMAL after the first NUMBER, or pilot NUMBER, which is the only NUMBER that is advertised or published or listed on directory assistance. Here, the first NUMBER is 213/445-1000 all the rest are to be 213/445-D444 and 213/445-D445 and so on. This simple act of moving second and up NUMBERS to PRIVATE HEXADECIMAL NUMBERS will make the utilization of plant equipment much higher and conserve PUBLIC DECIMAL NUMBERS for PUBLIC uses. Keep in mind, we have only 10,000 PUBLIC NUMBERS in an exchange, but we also have 55,536 extra HEXADECIMAL NUMBERS there also, all going to waste. Is it any wonder we now find ourselves in a number crunch?

228. Then there is the concept of a terminated line NUMBER and a dumped NUMBER. A very high percentage of toll free NUMBERS are used by the alarm INDUSTRY. This is true even in local areas, because there is a printout at the end of the month showing the exact time the call was placed to the monitoring station, and this can be used in court as very good evidence. Were the call to be received on a local line, no independent call time record would be available.

229. The alarm INDUSTRY greets the use of PRIVATE HEXADECIMAL

PHONE NUMBERS with open arms as the advantages far out weigh other considerations. And the fact that this INDUSTRY has been using HEXADECIMAL NUMBERS for the last 25 years provides plenty of experience and know-how.

229. Toll free NUMBERS that are dumped onto local pots NUMBER are once again using PUBLIC NUMBERS where they should not be doing so for the conservation of NUMBERS to be effective. These local NUMBERS can and should be HEXADECIMAL NUMBERS.

230. Toll free NUMBERS that are terminated as a local pots NUMBER are also wasting the PUBLIC NUMBERS available. They can and should be PRIVATE HEXADECIMAL PHONE NUMBERS.

231. All these NUMBER translations are transparent to the user, so why not put all the translations in the HEXADECIMAL part of the available NUMBERS in every exchange. Keep in mind the black piano key concept earlier in this writing.

232. BUSINESS SERVICES NUMBERS - The 900 pay for services NUMBERS are exactly the same as the 800 NUMBERS discussed above, except you pay for these services. So they can be made to use HEXADECIMAL Numbered lines in the very same way.

233. LOCAL NUMBERS - Mostly covered above, you can see that in situations where a lot of NUMBERS are used in a rotary bank, all but the first NUMBER can be HEXADECIMAL with no change in service or even knowledge by consumers that this has taken place.

234. Business with 5 or more lines should be the initial target of change to HEXADECIMAL NUMBERS. Some changes to services, such as Centrex, can be made at the switch room. In some situations, a very big board is provided with a button for each PHONE and the person answering incoming calls pushes the button of the desired extension to complete the call. These do not need to be changed in any way. By selecting a HEXADECIMAL NUMBER series like 234-

F111 to whatever, only the 111 need be on the board, as this is known as ▒line NUMBER▒ one eleven, or extension 111. The first part of the NUMBERS is not even on the tag, because they won't fit, it's too small! Here we have an opportunity to cooperate in number selection.

234. PAY STATIONS - If you can't receive return calls on this PHONE, then make the NUMBER PRIVATE HEXADECIMAL in the first place!!!!! I think this idea of not allowing return calls is worth less than the 35 cents allowed for using the PHONE and so should require a lower rate. A lot of business people do not feel they can afford the high cost of cellular Phones. My first month bill was $742.38 and I nearly died when I got it!

235. Yes, Dorothy, there are people without Phones, alive and well in this state. And, no they are not drug dealers! These people need to be able to page their boss to see if he has work for them today, but the CPUC has destroyed this man's job possibilities by blocking pay PHONE call backs.

236. And when we all get the big one, the earth quake of all mothers, you may very well wish the PAY STATION allowed call backs, as it may be the only life line you have to the rest of the world. Remember, in a catastrophe, weird things happen. A one thousand pair cable is cut, but only 4 lines still work! I'll bet you wish to God that pay PHONE is on one of those 4 lines and THAT IT allows callbacks.

237. EMERGENCY ADVANTAGE AT LONG LAST - When California has another earthquake of a magnitude of 4.5, an electromechanical switch located in the switch room of all PHONE companies will trigger a change in the computer program subroutine that will prevent all calls except PRIVATE HEXADECIMAL Numbered calls. This will allow emergency calls to get through by blocking all other calls.

238. ALARM SIGNAL LINES - In some installations, the business or premise PHONE line is not shared with the alarm signal line. In schools and various industries, jewelry, diamonds, etc. the alarm has its own, dedicated line for its exclusive use. These alarm, fire, burglary, holdup lines should be HEXADECIMAL PHONE Numbered.

239. This same criterion applies to Call Box Signaling, Elevator Phones, and Freeway Emergency Phones - all should be HEXADECIMAL Numbered.

240. Computer Bulletin Boards, Computer Accesses to AOL and others should all be HEXADECIMAL Numbered.

241. Credit card verification and Point of sale systems, all can use HEXADECIMAL PHONE lines freeing the PUBLIC lines for PUBLIC uses.

242. Voice Mail can use the PUBLIC HEXADECIMAL NUMBERS and free DECIMAL NUMBERS for PUBLIC uses. And pages that are automatically included in the message or simple tone pages can all be PUBLIC or PRIVATE HEXADECIMAL NUMBERS.

243. MILITARY AND PUBLIC EMERGENCIES - If you think we are all safe from terrorist attack, think again. It will happen and it will be a disaster on a scale we have yet to imagine. Whenever nature is involved, as in a forest fire, we come to see just how small we are in the overall picture of things. The only effective weapon is to fight fire with fire. When a biological attack is made, nature takes over and we will be helpless to fight this monster. Just ask any biology major about it!

244. The need to have reliable communications will be the subject of extended discussion after the fact, by those who live on, because no calls will be successful using the DECIMAL PHONE

system. Too many people will chat and chat and chat, preventing the system from being able to handle the needed emergency calls.

244. We can program the PHONE system to respond only to PRIVATE HEXADECIMAL PHONE NUMBERS. These calls can be made to work, for example, from hospital to hospital with no problem, provided you can get the PUBLIC off the PHONE so the system can handle these emergency calls.

245. By denying the completion of PUBLIC DECIMAL and PUBLIC HEXADECIMAL calls, you free up the system to handle PRIVATE HEXADECIMAL calls, which with the limited functioning system, have a much better chance of completion.

246. OTHER PHONE COMPANIES - The telephone system is experiencing some change by way of opening the business to other phone companies. The two major companies, Pacific Telephone and General Telephone now have competition of sorts. In passing, these two have refused to cooperate to the satisfaction of the CPUC and as a penalty, have been denied the right to offer long distance services. This is somewhat of a diversionary tactic and writing all in itself. I have to stop somewhere so; this is all I will have to say about that subject.

247. This Proposal you are reading, the expanded use of HEXADECIMAL numbers does not affect these other companies in any way, except that they too must offer HEXADECIMAL numbers, in the same way as the big boys are required. If they are allotted 10,000 lines or just 1,000 lines are assigned for their use, they still have usable and assignable Public and Private HEXADECIMAL phone numbers in every group of numbers.

248. Suppose they are given 213/305, decimal, included is 305-*123 and 305-#678, and 305-DDDD to FFFF HEXADECIMAL. Or, if they are given 619/445-1000 to 445-1999, decimal, they still have both Public and Private HEXADECIMAL numbers to be assigned as in 445-

1*34 or 445-10#3 and they also have 445-1DDD to 445-1FFF for Private HEXADECIMAL assignments.

248. Are you beginning to see the marvelous advantages of this HEXADECIMAL system? As I said, HEXADECIMAL numbers are everywhere, in every exchange and line number and in every area code and they are free!!!!

249. HEARING IMPAIRED COMMUNICATIONS - These devices can be Public HEXADECIMAL or even Private HEXADECIMAL all to their advantage. Since no unwanted calls by the general public will be accidentally made into this system. Yet another advantage of number choice!

250. CORPORATE PLANTS AND SECURED LOCATIONS - Many national companies do not allow PRIVATE calls from corporate locations and maintain complete control on calls incoming. Secure locations, research centers and the like, have the same obligations to maintain control of their call traffic. All these are candidates for PRIVATE HEXADECIMAL PHONE NUMBER assignments, except for the single PUBLIC DECIMAL incoming lines to operators, who will make the connections they decide, are warranted and necessary and that do not breech security.

251. If you remember some time ago, when touch tome was first coming into use, we had a push button tone pad along side the rotary dial phone. We had to use the rotary dial to make the call, but could use the tone pad to signal some features, once the call was established. We do have telephone HEXADECIMAL tone pads that allow complete PRIVATE HEXADECIMAL NUMBER calling. These are useful in secured locations and under emergency conditions, but should not be made available to the general PUBLIC.

252. PHONE COMPANY BUSINESS OFFICES AND REPAIR SERVICES - when you call the 811 NUMBER or the 800 NUMBER or the 611 NUMBER, they

are all translated to pots NUMBERS. Those NUMBERS should be PRIVATE HEXADECIMAL NUMBERS.

252. EMERGENCY SERVICES - When you dial 911, it is translated to pots NUMBERS. Those NUMBERS should be PRIVATE HEXADECIMAL NUMBERS, not DECIMAL NUMBERS.

253. PUBLIC INTEREST, CPUC, ALJ, AND FCC; State and Federal Elected Officials - We all have the obligation to keep in mind that these government agencies exist to serve the PUBLIC interest. They are here to serve us and to control the telephone companies in what is our view of desirable functioning. There are gaps in this fabric; some would even call them rips.

254. FRIED GREEN HEXADECIMALS SERVED ON TOAST - A menu of possible solutions presents a problem for those not sufficiently informed as to what each listing is and the ramifications of ordering this item over that item. Even at this rather low level, no one on this list is expected to have extensive experience in computers and telephones and communications unless they were trained in these subjects. Most are attorneys, with only limited experiences and understandings about the subject at hand. Some may have access to experienced consultants, and for those with this help, I urge you to independently confirm my points and theories. If I have made a mistake, please do let me know about it, to be silent would be to accept an error. But, do your homework first!

255. The mistake made in the Apple Computer vs. Microsoft case about their interface was that the Judge did not understand what the case was about and the devastating destruction to Apple, brought on by his erroneous decision. I will not make that mistake in this presentation! The audience on this FCC list is diverse and interested, but may not be well informed, so let's hold class!

256. Mathematical Set Theory - Set theory has been around for a long time and was taught as an elective during my undergraduate time at the University of Kansas, in 1959. Your kids have this same information today in high school. Ask them!

257. The Set is just a name for the characters or NUMBERS to be used to express something. In the case of words, in the English language, the set is the alphabet (ABC and so on).

258. The DECIMAL NUMBER set is just (Ø , 1, 2, 3, 4, 5, 6, 7, 8, 9). Their is a Binary NUMBER set (Ø , 1), and an Octal NUMBER set (Ø , 1, 2, 3, 4, 5, 6, 7). Notice the derivation of the words that are used to describe the various sets and the Base we define to be: Bi- for Base 2, Oct- for Base 8, and Dec- for Base 10.

259. The present PHONE system is contaminated and is said to be ▒dirty.▒ You may think it is DECIMAL or Base 10, but that is not exactly correct.

260. TELEPHONE COMPUTER PROGRAMMING - I have no intention of allowing the PHONE company interests to cry about the millions of dollars they want to snow us for the costs of programming to implement the HEXADECIMAL NUMBER assignments and limit emergency access that I propose.

261. A short class in programming. The telephone computers are programmed in UNIX, a sophisticated computer language. Although not near for word, the following is a simple example of how to extend the input to allow for all the HEXADECIMAL digits and to allow for control of calls during an emergency. At the present time, if you dial a NUMBER 234-#789 or use the * in a NUMBER, you will get a reject recording telling that the NUMBER can not be completed as dialed. Here is how that is done and the emergency call situation is also shown:

262. LINE NUMBER then INSTRUCTION (IN CAPS) WITH VARIABLES (lower

case) then MY COMMENTS.

262. 1 IF off hook THEN give dial tone ELSE continue

263. COMMENT: THIS IS AN IF, THEN, ELSE INSTRUCTION. IF YOU TAKE THE PHONE IN HAND, IT IS SAID TO BE ▒OFF HOOK▒ AND YOU NEED TO HEAR A DIAL TONE, ▒give dial tone.▒ (Passing note: In an emergency, this is where people fail to wait for the dial tone, which tells you that the computer is ready to accept your dialing. If you dial without the dial tone, your call will not be processed.) IF THE PHONE IS NOT IN YOUR HAND, THEN NO SERVICE IS NEEDED, SO THE COMPUTER WILL GO ON TO THE NEXT PERSON NEEDING A DIAL TONE, this is the ▒continue▒ part. GO READ LINE 3.

264. 2 RESERVED FOR BELOW DISCUSSION

265. 3 INPUT x AND GOSUB test
266. COMMENT: THE SYSTEM WAITS FOR A DIAL TONE THEN ALLOWS INPUT OF THE FIRST DIGIT YOU DIAL AND THEN GOES TO A SUBROUTINE NAMED ▒test▒ GO READ LINE 10

267. 4 MOVE x TO digit string AND ADD 1 TO count

268. 5 IF count = 7 THEN GOTO process call ELSE GOTO LINE 3

269. COMMENT: HERE THE DIGIT YOU DIALED IS ADDED TO THE NUMBER STRING AND A DECISION IS MADE ABOUT ARE THEIR ENOUGH DIGITS TO COMPLETE THE NUMBER. IF YES, THEN THE CALL IS PROCESSED (NOT INCLUDED) IF NO, THEN GET ANOTHER DIGIT BY GOING TO LINE 3, Go to line 22.

270. 10 SUB test

271. COMMENT: THIS SUBROUTINE CHECKS FOR A GOOD DIGIT. READ 11.
272. 11 IF x IS LESS THAN 1 OR MORE THAN 10 THEN
273. GOSUB recording reject ELSE RETURN x
274. COMMENT: THE DECISION TO ACCEPT THE DIGIT OR PLAY A RECORDING IS MADE HERE. IF THE DIGIT IS IN THE RANGE (1,2,3,4,5,6,7,8,9,or 10) THEN IT IS A GOOD DIGIT AND WILL BE MADE A PART OF THE NUMBER BEING DIALED. WHEN 7 DIGITS ARE RECEIVED, THE CALL IS PROCESSED (NOT INCLUDED). IF THE DIGIT IS OUTSIDE THE RANGE ALLOWED, THEN A RECORDING IS PLAYED, GO READ LINE 20 OR GO TO LINE 4

275. 20 recording reject

276. 21 PLAY rejects recording THEN disconnect caller AND continue
277. 22 END

278. This is the end of the demonstration computer program. All the above takes place in milliseconds, but you can act it out and

understand how it is done. As you can see, it is really not all that hard to understand. If you are smart enough to write a legal brief, then you are smart enough understand this program. Here are some options for your consideration.

278. If a decision is made to implement some form of emergency control as a direct result of using HEXADECIMALS, then this is part of how that can be done. Replace the lines above with these lines, NUMBER for NUMBER:

279. 2 IF dialtone THEN read caller NUMBER
280. COMMENT THIS IS WHERE A TEST OF THE CALLING PARTY NUMBER CAN BE MADE TO PREVENT USE DURING AN EMERGENCY
281. 3 IF caller NUMBER IS NOT PRIVATE HEXADECIMAL THEN continue

282. Here the test is made about the source of the call, the caller's NUMBER. If this call is from a PRIVATE HEXADECIMAL NUMBER, then allow it to be processed, otherwise go to the next off hook line, by executing the instruction ▒continue.▒

283. Another way to accomplish emergency control is to test to see if the digits dialed are 911, in that order. This additional line of code would be required in line NUMBER 12.

284. 12 IF x(1) IS NOT 9 THEN continue
285. COMMENT THIS WILL CHECK TO SEE THAT THE FIRST DIGIT x(1) IS A 9 AND SIMILAR AND SLIGHTLY COMPLICATED ADVANCES ARE REQUIRED TO SEE TO IT THAT THE NEXT DIGITS ARE 1 AND 1, BUT THIS CODING WILL BE ONLY MORE CONFUSING TO MOST OF YOU AND I HAVE LEFT IT OUT.

286. So how do we change from DECIMAL NUMBERS to HEXADECIMAL PHONE NUMBERS? Here is the MAIN reason I provided all this programming. In line 11 make this simple change:

287. 11 IF x IS LESS THAN 1 OR MORE THAN 10 THEN
288. GOSUB recording reject ELSE RETURN x (DECIMAL only)

289. 11 IF x IS LESS THAN Ø OR MORE THAN 15 THEN
290. GOSUB recording reject ELSE RETURN x (HEXADECIMAL)

291. COMMENT: THE RANGE OF TEST DIGITS IS CHANGED FROM (1 TO 10) TO (Ø TO 15). NOW HOW LONG DO YOU THINK THAT TAKES AND HOW MUCH WILL IT COST?

292. It is just that easy! You just did it, yourself! So don't allow the PHONE Company to tell you it will take months and cost millions. Such a claim is a lie. See it for yourself - go back and re read it. It takes less time to do than it takes to write about doing it!

293. I know the Telephone Company will cry and try to drink at the money trough. They will try to tell you that this change will take more than 2 months to implement. Now that you are educated about that scam, don't even give them consideration; let them know, now that you are smarter than that!

294. Then, they will claim it will cost millions to implement, but where and why and for what reason. You just did it and it cost less than the time it took me to write about it.

295. All the phone company computers are connected and one change is automatically incorporated in all processing centers and switch room computers immediately (as fast as you can send an email). And it doesn't cost a penny to transmit the information in the program.

296. If you would like to learn about the cost scam to provide call waiting for $3.50, when a cost of $0.35 would EVEN be excessive, write me.

297. NIGHTMARE ON TONE PAD AVENUE - You will be surprised at what can be found in an alley, besides the obvious junk and debris, there are tone pads that are inconsistent! Looking at the stock telephone pad on every PHONE in America, we see that the digits increase from left to right and then drop a row and increase from

left to right and drop a row and OOPS - they don't increase from left to right, it is not ABC it is BAC.

297. Then there is the drawing I made to show and tell people about how the column of four buttons to the right is missing from your PHONE. I made the buttons DEFØ using the logic that they increased in the column and after the F was a loop around to pick up the lonely true Ø button. This may be wrong! This is but one of the sources for my steadfast comment that the phone companies lie about information or just refuse to provide it, but not to worry, as you will see by reading on.

298. DIAL PAD RELATIONS WITH THE COMPUTER - When a button is pushed two tones at the frequencies corresponding to the intersection of the vertical and horizontal lines are produced.

///

Hexadecimal Phone Number Pad (4x4)
PAID for every month by **all** telephone users, starting some 20 years ago

NOTE: Decimal Phone Number Pad (3x4), WE ALL USE TODAY, IT **DOES INCLUDE** 3 HEX DIGITS FOR *, 0, #.

Decimal Phone Number Pad

1 QZ	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PRS	8 TUV	9 WXY
* 11	0 10	# 12
HEX B	HEX A	HEX C

HEX
D 13 HEX D
E 14 HEX E
F 15 HEX F
Ø TRUE HEX Ø TRUE ZERO

NOTE: Hex column D-E-F-0 is **NOT ON YOUR PHONE**, SO YOU CAN NOT DIAL A HEXADECIMAL PHONE NUMBER, BUT **YOU ARE NEVER GOING TO NEED TO DIAL HEX ! ! !**

Figure: 7 **Hex Digits**

Hexadecimal Characters: Ø, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F
Decimal (Sub Set of Hex): 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 (out of order)
Hexadecimal **IN USE TODAY**, see above: 0, *, #
NOTE: Decimal phone number system does **NOT** use **true zero (Ø)**, the first character is 1 and the last is 0 = A = 10 (true order); this is because of the change from a pulse dial to a tone dial, where a **true zero Ø** would produce no pulses, so it was put at position ten, with 10 pulses. In a tone system, true-zero-thousand **WILL** be used, **NOT WASTED !**
NOTE: 3/DEF key is **NOT HEX**, it may be used for **VANITY** numbers.
RESOURCE CONSERVATION MUST BE PRACTICED ! !
NOTE: Decimal is base 10, so 4 digit line number is 10x10x10x10 = 10,000 lines per prefix. **Wastes valuable RESOURCE!**
NOTE: Hexadecimal is base 16, so 4 digit line number is 16x16x16x16 = 65,536 lines per prefix. **Uses valuable RESOURCES !**

299.

300. Figure 1: Dual Tone Multiple Frequency Tone Pad showing HEXADECIMAL DIGITS.

301. Equipment at the switch room senses the frequencies of the tones and determines the dialed digit. This is a piece of equipment known as TONE 2 DIGIT and it captures the digit and gives it to the input of the computer. This is the DTMF system or touch-tone.

302. The fourth vertical column at the frequency of 1633 Hertz per second is the main subject of this writing. Note that the lower row shows that we have been using HEXADECIMAL digits for a long time, O from the very start, and also * and #, all from when we all first paid for this base 16 system!

303. If you push two buttons in a column or row, both at the same time, you can hear a single tone. Some enterprising players can play a musical tune on the pad.

304. WHY NOT MORE DIGITS - The phone at home and elsewhere is linked to the computer located at the switch room by way of a twisted pair of wires. Tests were run to determine the frequency response of this twisted-pair based link to the switch. The reason was the need to determine the frequency limits that could be reliably used for digits defined by way of tones on the line.

305. This is how the 4x4 = 16 tone pad and the frequencies were decided upon. One may question, why not have many more tones for the whole alphabet on the line, say 7x7 = 49, including all the digits, numbers, and punctuation on a tone pad? The reason is that the extra tones will not be successful in reaching the switch room and therefor it is not an acceptable system.

306. In contrast, using a phone system that is coaxial wire

based, as is the cable television system and offerings from Cox Communications and others, there is virtually no limit on the frequency range for phone tone digits and all the alphabet and then some could be toned with ease. But, this is not yet acceptable, since we must address the needs of all America, which is almost entirely two conductor, twisted wire.

306. ISSUE PROFILE - We have the newly proposed Industry Class of service, which includes all locations of the Business Class and all locations of the Residence Classes of service.

307. The ▒digit symbols▒ here after referred to only as digits, are included in classes of service and consist of Ø,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F. Where the Ø represents true zero. Readers should keep in mind that digit 0 on your dial is actually HEXADECIMAL A or 10 in decimal, that symbol * on your dial is actually HEXADECIMAL B or 11 in decimal, that symbol # on your dial is actually HEXADECIMAL C or 12 in decimal.

308. As you can see, we have several columns of information to get clear:

309. DECIMAL, HEXADECIMAL, BINARY CODED DECIMAL, TOUCH-TONES, PHONE PAD, BELL LABS, SYMBOL, ALPHABET, and CHANGES NEEDED SOON.

310. WARNING: Reminder, the ALPHABET column is for perspective only, it is the source of vanity phone numbers, AND IS NOT THE SUBJECT OF THIS WRITING!

311. Such vanity numbers as 415/CALL CPUC, for example, which in phone number digits is 415/2255 2782, or 415/225-5278 with a spill over digit of 2. This is in part, the reason why the invention called Smart Dialing, ending the number in a 0 or 1 or 2 to indicate the overlay area code will fail, it is not NANP compliant, so it has no chance for adoption. It is nevertheless, a good idea to be offered as a feature in accessory equipment that is not under the CPUC or FCC control.

312. REQUEST: We need to have the phone tone pads changed to accommodate the letters Q and Z and to have the HEXADECIMAL digits placed upon the dial as in 0/A, */B, & #/C, do this when repairing phones or on new phones.

313. Many cellular and other portable wireless phones correctly display the * as a B, and the # as a C, already!

314. TABLE 1: == PHONE SYSTEM SYMBOL TABLE ==

DEC (10)	HEX (16)	BCD (2)	TONES DTMF (Hz)	PHONE (10?)	BELLLABS SYMBOL ALPHABET CHANGES (Mixed)	(2)	(26) NEEDED
101	16	8421	Low+High	1	1&Alpha	1	1 SOON
- =	Ø =	0000 =	941+1633	-	%D <not hex)		
1 =	1 =	0001 =	697+1209	1	1		Q Z
2 =	2 =	0010 =	697+1336	2	2	A B C	<not hex)
3 =	3 =	0011 =	697+1477	3	3	D E F	<not hex)
4 =	4 =	0100 =	770+1209	4	4	G H I	
5 =	5 =	0101 =	770+1336	5	5	J K L	
6 =	6 =	0110 =	770+1477	6	6	M N O	
7 =	7 =	0111 =	852+1209	7	7	P R S	
8 =	8 =	1000 =	852+1336	8	8	T U V	
9 =	9 =	1001 =	852+1477	9	9	W X Y	
10=	A =	1010 =	941+1336	0	0	OPER	0/A
- =	B =	1011 =	941+1209	*	* *		*/B
- =	C =	1100 =	941+1477	#	# #		#/C
- =	D =	1101 =	697+1633	-	%A <not hex)		
- =	E =	1110 =	770+1633	-	%B <not hex)		
- =	F =	1111 =	852+1633	-	%C <not hex)		

315. Descriptions and Definitions for this Phone System Symbol Table:

316. DEC -------- decimal, () base 10, position weight 10 1

317. HEX -------- HEXADECIMAL, () base 16, position weight 16
318. BCD -------- binary coded decimal, () base 2, position
319. weight 8 4 2 1
320. TONES -DTMF- Dual Tone Multiple Frequency, in Hertz, Lower & higher band

321. PHONE ------ tone pad, () base modified 10, position weight 1

322. BELLLABS --- 16 button (4x4) pad, () base 10 & ??, uses ABCD in
column but ==DANGER== DO NOT MIX UP THESE WITH TRUE HEXADECIMAL ABCDEF

Look at last line: - = F = 1111 = 852+1633 - %C <not hex) see how F is not equal to %C. Percent symbol is used to keep them different along with <not hex) notations

323. SYMBOL ----- hieroglyphic drawings, meanings for star and pound

324. ALPHABET --- Arabic alphabet, used for vanity phone numbers
325. CHANGES ---- needed changes to update dial buttons on new phones by adding QZ on button 1 and 0/A on button 0 and */B on button * and #/C on button #
326. <not hex)--- means not HEXADECIMAL (in this direction)

327. Yes we have three ABCD's, but the percent (%) symbol does count and so does the <not hex) notation, as in the vanity alphabet column